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Title:
Effectiveness and Utility of IHC Staining in Mild Chronic Gastritis in Detection of H. pylori Organisms: Practice Trends in General Pathologists and GI Pathologists

Background:
Guidelines suggest implementation of immunohistochemical (IHC) stain for H. pylori be used in specific circumstances including defined grades of gastritis. However, the definition of “mild” chronic gastritis is somewhat difficult and subjective. The purpose of this study is to evaluate the effectiveness and utility of H. pylori IHC in gastric biopsies showing “mild” chronic gastritis in two practice settings: generalists and GI subspecialists.

Design:
Data from reports from three different hospitals under our health care system to evaluate two different practice settings: one subspecialty based GI practice setting at a large academic center, and other general pathology practice setting. Both these settings do not follow reflex/upfront IHC or any other special stain usage. Gastric biopsies reported as showing “mild chronic inflammation/gastritis” were obtained from 1/1/21-3/1/21 for the subspecialty setting and from 1/1/21-4/30/21 for general pathology practice setting. Prior H. pylori positive/treated cases and gastric resections were excluded from the study.

Results:
A total of 304 cases of mild chronic gastritis were found; 287 cases were of inactive mild chronic gastritis and 17 were of active mild chronic gastritis. Of the 287 cases of inactive mild chronic gastritis, H. pylori IHC was ordered on 185 cases (64.5%), of which 3 cases were positive (3/185: 1.62%). Of the 17 cases of active mild chronic gastritis, H. pylori IHC was ordered on 15 cases; two of which were found to be positive by IHC (2/17: 13.33%). Intestinal metaplasia was found in 19 cases (19/304: 6.25%); all of which was found in the inactive category. H. pylori IHC was ordered on 14 cases (73.7%; 14/19). However, none of these cases were positive by IHC. General pathologists ordered IHC on 98.6% of cases in inactive category (141/143) and 90.0% in active category (9/10). In contrast, GI pathologists ordered IHC on 30.5% of cases in inactive category (44/144) and 85.7% (6/7) in active category.

Conclusion:
There is a low yield of H. pylori IHC positivity in cases of mild chronic inactive gastritis (1.05%; 3/287). Given its low added value, careful consideration for ordering IHC should be given in
such cases, even when intestinal metaplasia is present. General pathologists ordered 3 times more IHC than GI pathologists. We advocate the appropriate use of *H. pylori* IHC based on the current recommendations and hypothesize the term “chronic” gastritis may be overused in the generalist setting.